

California High-Speed Rail Project



RFP No.: HSR 14-32

**Request for Proposals for Design-Build
Services for Construction Package 4**

**Book II, Part C.1 - Draft Railroad Agreement
Terms**

1. Work	
Approved Project Schedule/ Baseline Design Report	Contractor is responsible for coordination and obtaining concurrence from BNSF and UPRR on the project schedule/baseline design report.
Design & Construction	
Requirements for structures and facilities:	Any structure or facility, whether permanent or temporary, including grade separations, that will be modified or constructed as part of the Project (1) on railroad property; (2) within 102 feet of the centerline of the nearest future railroad track assumed to be 15 ft. inside railroad right-of-way.
	BNSF and UPRR require design review for all HSR Project work within 102 feet from the edge of the railroad ROW.
	The Contractor will design and construct (except as otherwise expressly provided), and obtain all required permits or other governmental approvals required for, all structures or facilities.
	All structure and facilities within railroad ROW must be designed and constructed in accordance with all applicable laws, rules, regulations, AREMA guidelines, and railroad standards and specifications.
	All structure and facilities must (i) clear-span railroad's right of way if part of a flyover structure unless otherwise approved by railroad; (ii) be designed and placed in a manner that allows CHSRA to inspect and maintain without entering railroad's property which may require constructing at least five (5) feet away from the edge of the railroad property; and (iii) be constructed a sufficient distance away from railroad's property to permit railroad's full utilization of its property for railroad purposes.
Review Periods:	<p>To assist in expediting railroad approval of the Final Plans, Contractor will provide railroads with 60% and 90% Design Plans for each structure or facility. The railroads and Contractor may meet promptly, and no later than thirty (30) days after railroad receipt, to discuss the review of such 60% and 90% design plans if either party reasonably believes that doing so will expedite approval of the Final Plans.</p> <p>Contractor will provide railroad with Final Plans for each structure and facility as soon as Final Plans are available. Railroads will provide Contractor with approval of, or written review comments on, the Final Plans within sixty (60) days of receipt.</p>
Relocation of Existing Utilities:	The Contractor is responsible to design and coordinate the protection, modification, and relocation, as necessary, of all existing utilities that are affected by the Project, on railroad property, including but not limited to fiber optic lines and pipelines, whether buried or not, subject to railroad review and approval. Contractor will prepare any and all notices and other transmittals to utility companies that are required in connection with such work. Any

	work done in relation to utility protection, modification, or relocation on railroad property will be done in compliance with railroad standards and procedures.
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1. Work (Continued)	
Requirements Specific to BNSF Railway:	<ol style="list-style-type: none"> 1. <u>Geometric Cross Section</u> <ul style="list-style-type: none"> • Vertical separation: 10 feet minimum base to crest for berm, 13.5 feet minimum base to HSR top of rail (TOR) for HSR embankment • Side Slopes, berm: desirable 2:1, minimum 1.75:1 • Slide slopes, embankment, minimum 2:1 • Berm crest, without fence: desirable 3 feet, minimum 2 feet • Berm crest, with fence: desirable 6 feet, minimum 4 feet • Ditch bottom width: desirable 10 feet, minimum 4 feet • Location of access control fencing to be determined based on consideration of: <ul style="list-style-type: none"> - Maintenance - Property ownership - Physical limitations (e.g., locating fences in drainage ditches, on slopes, top of berms) 2. <u>Operations and Maintenance</u> <ul style="list-style-type: none"> • Separate BNSF and HSR drainage systems are preferred. Combined BNSF and HSR drainage is considered acceptable subject to an agreement on design and maintenance. Design drainage systems so that they could be maintained by either BNSF or HSR forces. • Use of a closed drainage system is avoided wherever practical. • Railroad access to constrained areas will be from beginning and end of section without intermediate transverse access. 3. <u>Safety and Security</u> <ul style="list-style-type: none"> • Access-control fence placement, configuration, maintenance, gate placement and operation, to be agreed to by both the Authority and the Railroad to maintain integrity of HSR access-controlled corridor and allow for maintenance access. 4. <u>Right of Way</u> <ul style="list-style-type: none"> • Existing longitudinal utilities (fiber, pipelines, etc.) will be relocated as necessary within the BNSF corridor. • Issues related to the condition where the fence is closer to the HSR alignment in order to allow BNSF maintenance of the ditch on HSR property will be subject of a future agreement. 5. <u>Environmental</u> <ul style="list-style-type: none"> • Wildlife crossings will be accommodated where necessary.
Graffiti Abatement	Graffiti abatement during construction is the responsibility of the Contractor.
Flagging	Contractor will be responsible for scheduling and coordinating flagging requirements with the railroads. The Authority has cost responsibility for flagging.

2. Other Contract Provisions	
Indemnity and Insurance	Will be covered by separate Insurance and Indemnity agreements. Insurance provisions referenced in the Sample Contractor Requirements and Right of Entry agreements, attached, are provided for reference.
Confidentiality	<p>For the purposes of this section, “Confidential Information” means any information delivered to either party (the “Receiving Party”) by or on behalf of the other party (the “Providing Party”) in connection with the transactions contemplated by or otherwise pursuant to this agreement that is proprietary, privileged, or confidential in nature and that was clearly marked or labeled or otherwise adequately identified when received by the Receiving Party as being proprietary, privileged, or confidential information of the Providing Party, provided that such term does not include information that</p> <ul style="list-style-type: none"> (a) was publicly known or otherwise known to the Receiving Party prior to the time of such disclosure, (b) subsequently becomes publicly known through no act or omission by the Receiving Party or any person acting on the Receiving Party’s behalf, or (c) constitutes financial statements that are otherwise publicly available. <p>The Receiving Party will maintain the confidentiality of such Confidential Information in accordance with procedures adopted by the Receiving Party in good faith to protect confidential information of third parties delivered to it, provided that the Receiving Party may deliver or disclose Confidential Information to</p> <ul style="list-style-type: none"> (a) its directors, officers, employees, agents, attorneys, and affiliates (to the extent such disclosure reasonably relates to the administration of the transactions contemplated by this agreement), (b) its financial advisors and other professional advisors who agree to hold confidential the Confidential Information substantially in accordance with the terms of this Section, (c) any federal or state regulatory authority having jurisdiction over the Receiving Party, and (d) any other person to which such delivery or disclosure may be necessary or appropriate (i) to effect compliance with any law, rule, regulation or order applicable to the Receiving Party, (ii) in response to a subpoena or other legal process, (iii) in connection with any litigation to which the Receiving Party is a party, or (iv) to the extent the Receiving Party may reasonably determine such delivery and disclosure to be necessary or appropriate in the enforcement or for the protection of the rights and remedies under this Agreement.

3. Exhibits	
Sample BNSF Railway Contractor Requirements	See Attached
Sample BNSF Railway Bridge Requirements	See Attached
Sample UPRR Contractor Right of Entry	See Attached

EXHIBIT C-CHSRA

Contractor Requirements

1.01 General:

- 1.01.01** The Contractor must cooperate with **BNSF RAILWAY COMPANY**, hereinafter referred to as “**Railroad**” where work is on, over, or under Railroad property and/or right-of-way, hereafter referred to as “**Railroad Property**”, during the construction of the overpass structure of the [INSERT DESCRIPTION, EITHER CP number or if overpass/underpass, Name of Overpass], [City], California, DOT # ___, CPUC # ___, MP ___, Railroad Subdivision (the “**Project**”).
- 1.01.02** The Contractor must execute and deliver to the Railroad duplicate copies of the **Exhibit C-1-CHSRA** Agreement (the “**Contractor Agreement**”), in the form attached hereto, obligating the Contractor to provide and maintain in full force and effect the insurance called for under Section 3 of the Contractor Agreement. Questions regarding procurement of the Railroad Protective Liability Insurance should be directed to Rosa Martinez at Marsh, USA, 214-303-8519.
- 1.01.03** The Contractor must plan, schedule and conduct all work activities so as not to interfere with Railroad operations, including without limitation, movement of any trains on Railroad Property, except to the extent approved by Railroad.
- 1.01.04** The Contractor’s right to enter Railroad Property is subject to the absolute right of Railroad to cause the Contractor’s work on Railroad Property to cease if, in the opinion of Railroad, Contractor’s activities create a hazard to Railroad Property, employees and/or operations. Railroad will have the right to suspend construction work on the Project on Railroad Property when allowed as provided in the Agreement to which this Exhibit is attached or if any of the following events take place: (i) Contractor (or any of its subcontractors) performs the Project work in a manner contrary to the plans and specifications approved by Railroad; (ii) Contractor (or any of its subcontractors), in Railroad’s opinion, prosecutes the Project work in a manner which is hazardous to Railroad property, facilities or the safe and expeditious movement of railroad traffic; (iii) the insurance described in the Contractor Agreement is canceled during the course of the Project; (iv) Railroad has not received payment for the applicable Temporary Construction License or the Easement as and when due, or (v) upon a breach of the Contractor Agreement. The work stoppage will continue until all necessary actions are taken by Contractor or its subcontractor to rectify the situation to the satisfaction of Railroad’s project representative or until additional insurance has been delivered to and accepted by Railroad. Any such work

stoppage under this provision will not give rise to any liability on the part of Railroad. Railroad's right to stop the work is in addition to any other rights Railroad may have including, but not limited to, actions or suits for damages or lost profits. In the event that Railroad desires to stop construction work on the Project, Railroad agrees to immediately notify the following individual in writing:

- 1.01.05** The Contractor is responsible for determining and complying with all applicable Federal, State and Local Governmental laws and regulations in connection with Contractor's work on the Project, including, but not limited to environmental laws and regulations (including but not limited to the Resource Conservation and Recovery Act, as amended; the Clean Water Act, the Oil Pollution Act, the Hazardous Materials Transportation Act, CERCLA), and health and safety laws and regulations. The Contractor hereby indemnifies, defends and holds harmless Railroad for, from and against all fines or penalties imposed or assessed by Federal, State and Local Governmental Agencies against the Railroad which arise out of Contractor's work under the Authority Agreement (as defined in the Contractor Agreement).
- 1.01.06** The Contractor must notify (**Authority**) at _____ and Railroad's project representative, telephone number () _____ at least thirty (30) calendar days before commencing any work on Railroad Property. Contractor's notification to Railroad must refer to Railroad's file _____.
- 1.01.07** For any bridge demolition and/or falsework above any Railroad tracks or any excavations located within, whichever is greater, twenty-five (25) feet of the nearest track or intersecting a slope from the plane of the top of rail on a 2:1 (horizontal to vertical) slope beginning at eleven (11) feet from centerline of the nearest track, both measured perpendicular to center line of track, the Contractor must furnish the Railroad with five (5) sets of working drawings showing details of construction affecting Railroad Property and tracks. The working drawing must include the proposed method of installation and removal of falsework, shoring or cribbing, not included in the Approved Plans and two sets of structural calculations of any falsework, shoring or cribbing. For all excavation and shoring submittal plans, the current "BNSF-UPRR Guidelines for Temporary Shoring" must be used for determining the design loading conditions to be used in shoring design, and all calculations and submittals must be in accordance with the current "BNSF-UPRR Guidelines for Temporary Shoring". All submittal drawings and calculations must be stamped by a registered professional engineer licensed to practice in California. All calculations must take into consideration Railroad surcharge loading and must be designed to meet American Railroad Engineering and Maintenance-of-Way Association previously known as American Railroad Engineering Association, Coopers E-80 live loading standard. All drawings and calculations must be stamped by a registered professional engineer licensed to practice in California. The

Contractor must not begin work until notified by the Railroad that plans have been approved. The Contractor will be required to use lifting devices such as cranes and/or winches to place or to remove any falsework over Railroad's tracks. In no event will the Contractor be relieved of responsibility for results obtained by the implementation of said approved plans.

1.01.08 Subject to the movement of Railroad's trains or other Railroad operations, Railroad will cooperate with the Contractor such that the work may be handled and performed in an efficient manner. The Contractor will have no claim whatsoever for any type of damages or for extra or additional compensation in the event its work on the Project is delayed by the movement of Railroad's trains or other Railroad operations.

1.01.09 Contractor must give Railroad's project representative thirty (30) days' advance notice of the times and dates for proposed work windows for Project work occurring on Railroad Property (excluding work on the roadway surface or deck of the Structure or that will not foul the Railroad's tracks). Railroad's project representative will work with the Contractor and the Authority, through a joint working group, if one is created by the parties, to determine consistency with the Approved Schedule (as defined below) and with Contractor to establish mutually agreeable work windows for such work. Contractor acknowledges that any request for work windows with less than thirty (30) days' advance notice will have a reduced probability of approval. Railroad has the right at any time to revise or change the work windows due to train operations, service obligations or changes to the Approved Schedule provided that, Railroad will use commercially reasonable efforts to provide advance notice to Authority of such revision or change. Railroad will not be responsible for any additional costs or expenses resulting from a change in work windows. Additional costs or expenses resulting from a change in work windows are the responsibility of the Authority. Contractor and subcontractors must plan, schedule, coordinate and conduct all Contractor's work so as to not cause any unscheduled delays to any trains or Railroad operations.

1.01.10 Capitalized terms not defined herein have the same meaning as set forth in the agreement to which this **Exhibit C-CHSRA** is attached.

1.02 Contractor Safety Orientation:

1.02.01 No employee of the Contractor, its subcontractors, agents, invitees or any third parties acting under the authority of Contractor may enter Railroad Property without first having completed Railroad's Engineering Contractor Safety Orientation, found on the web site www.contractororientation.com. The Contractor must ensure that every person entering Railroad's Property under the authority of Contractor completes Railroad's Engineering Contractor Safety Orientation through internet sessions before any work is performed on the Project. Additionally, the Contractor must ensure that each and every one of its employees, subcontractors, agents or invitees possesses a card certifying completion of the Railroad Contractor Safety Orientation before entering Railroad Property. The Contractor is responsible for the cost of the Railroad

Contractor Safety Orientation. The Contractor must renew its certification(s) under the Railroad Contractor Safety Orientation annually. Further clarification can be found on the web site or from the Railroad's project representative.

1.03 Railroad Requirements:

- 1.03.01** The Contractor must take protective measures as are necessary to keep Railroad facilities, including track ballast, free of sand, debris and other foreign objects and materials resulting from its work. Any damage to Railroad facilities resulting from Contractor's work will be repaired or replaced by Railroad and the cost of such repairs or replacement must be paid for by the Authority.
- 1.03.02** The Contractor must notify the Railroad's project representative at () _____ and provide blasting plans to the Railroad for review seven (7) calendar days prior to conducting any blasting operations adjacent to or on Railroad Property.
- 1.03.03** Contractor must maintain the following temporary clearances during construction:
- 15'-0" Horizontally from centerline of nearest track
 - 21'-6" Vertically above top of rail
 - 27'-0" Vertically above top of rail for electric wires carrying less than 750 volts
 - 28'-0" Vertically above top of rail for electric wires carrying 750 volts to 15,000 volts
 - 30'-0" Vertically above top of rail for electric wires carrying 15,000 volts to 20,000 volts
 - 34'-0" Vertically above top of rail for electric wires carrying more than 20,000 volts
- 1.03.04** Upon completion of construction, the following clearances shall be maintained:
- 25' Horizontally from centerline of nearest track
 - 23' 6" Vertically above top of rail
- 1.03.05** Any infringement within State statutory clearances due to the Contractor's work must be submitted to the Railroad and to the Authority and must not be undertaken until approved in writing by the Railroad, and until the Authority has obtained any necessary written authorization from the California Public Utilities Commission for the infringement. No extra compensation will be allowed in the event the Contractor's work is delayed pending Railroad approval, and/or Authority's or the California Public Utilities Commission's approval.
- 1.03.06** In the event that vertical clearance above top of rail is impaired, Railroad will have the option of installing tell-tales or any other protective devices Railroad deems necessary for protection of Railroad operations. The cost of tell-tales or protective devices will be borne by the Authority.

- 1.03.07** The details of construction affecting Railroad Property and Railroad’s tracks not included in the Approved Plans must be submitted to the Railroad by the Authority for approval before work is undertaken and this work must not be undertaken until approved by the Railroad.
- 1.03.08** At any location other than public road crossings, the Contractor must not move any equipment or materials across Railroad’s tracks until permission has been obtained from the Railroad. The Contractor must obtain a “Temporary Construction Crossing Agreement” from the Railroad prior to moving its equipment or materials across the Railroad’s tracks. The temporary crossing must be gated and locked at all times when not in use by the Contractor. The temporary crossing for use of the Contractor will be constructed and, at the completion of the Project, removed at the expense of the Authority.
- 1.03.09** Discharge, release or spill on Railroad Property of any hazardous substances, oil, petroleum, constituents, pollutants, contaminants or any hazardous waste is prohibited. Contractor must immediately notify the Railroad’s Resource Operations Center at 1(800) 832-5452, of any discharge, release or spills by Contractor in excess of a reportable quantity. Contractor must not allow Railroad Property to become a treatment, storage or transfer facility as those terms are defined in the Resource Conservation and Recovery Act or any state analogue.
- 1.03.10** The Contractor, upon completion of the its work on Railroad Property, must promptly remove from the Railroad Property all of Contractor’s tools, equipment, implements and other materials, whether brought upon said property by said Contractor or any subcontractor, employee or agent of Contractor or of any subcontractor, and must cause Railroad Property to be left in a condition reasonably acceptable to the Railroad’s representative.
- 1.04 Contractor Roadway Worker on Track Safety Program and Safety Action Plan:**
- 1.04.01** Each Contractor that will perform work within twenty-five (25) feet of the centerline of a Railroad track must develop and implement a Roadway Worker Protection/On Track Safety Program and work with Railroad project representative to develop an on track safety strategy as described in the guidelines listed in the on track safety portion of the Safety Orientation. This Program must provide Roadway Worker protection/on track training for all employees of the Contractor, its subcontractors, agents or invitees. This training is reinforced at the job site through job safety briefings. Additionally, each Contractor must develop and implement the Safety Action Plan, as provided for on the web site www.contractororientation.com, which will be made available to Railroad prior to commencement of any work on Railroad Property. During the performance of work, the Contractor must audit its work activities for compliance with its Safety Action Plan. The Contractor must designate an on-site project supervisor who will serve as the contact person for the Railroad and who will maintain a copy of the Safety Action Plan, safety audits, and Material Safety Datasheets (MSDS), at the job site.

- 1.04.02** Contractor shall have a background investigation performed on all of its employees, subcontractors and agents who will be providing any services for Authority or Railroad under the Authority Agreement which are or will **a)** be on Railroad Property, or **b)** require access to railroad critical infrastructure and railroad critical information systems as determined by Railroad in its sole discretion, Railroad’s employees working on Railroad Property, or involve Hazardous Materials on Railroad Property or is being transported by or otherwise in the custody of Railroad, or Freight in Transit involving Railroad.

The required background screening shall at a minimum meet the rail industry background screening criteria defined by the e-RAILSAFE Program as outlined at <http://www.e-railsafe.com>, in addition to any other applicable regulatory requirements.

Contractor shall obtain written consent and acknowledgement from all of its employees, subcontractors and agents screened in compliance with the e-RAILSAFE Program permitting Contractor to participate in the Program on their behalf and allowing release of completed background information to Railroad’s designee. Contractor shall be subject to periodic audit to ensure compliance.

When Contractor is subject to the e-RAILSAFE Program hereunder, Contractor shall not permit any of its employees, subcontractors or agents to perform services hereunder who are not first approved under e-RAILSAFE Program standards. Railroad shall have the right to deny entry onto the Railroad Property or access as described in this section to any of Contractor’s employees, subcontractors or agents who do not display the authorized identification badge issued by a background screening service meeting the standards set forth in the e-RAILSAFE Program, or who in Railroad’s reasonable opinion, may pose a threat to the safety or security of Railroad’s operations, assets or personnel.

Contractors are responsible for ensuring that its employees, subcontractors and agents are United States citizens or legally working in the United States under a lawful and appropriate work VISA or other work authorization.

1.05 Railroad Flagger Services:

- 1.05.01** The Contractor must give Railroad’s project representative (telephone _____) a minimum of thirty (30) calendar days advance notice when flagging services will be required so that the project representative can confirm this is consistent with the project schedule as developed and agreed to by the parties (as replaced or amended by other agreements between the parties) (such project schedule and/or construction schedule, the “*Approved Schedule*”) and, if consistent, can make appropriate arrangements (i.e., bulletin the flagger’s position). If flagging services are scheduled in advance by the Contractor and it is subsequently determined by the parties hereto that such services are no longer necessary, the Contractor must give the Railroad’s project representative five (5) working days advance notice so that appropriate arrangements can be made to abolish the position pursuant to union requirements. If

allowed by written approval of Railroad, Contractor may contract with a Railroad-approved flagging contractor to perform required flagging services for the Project.

1.05.02 Unless determined otherwise by Railroad's project representative, Railroad flagger(s) will be required and furnished when Contractor's work activities are located over, under and/or within twenty-five (25) feet measured horizontally from centerline of the nearest track and when cranes or similar equipment positioned beyond 25-feet from the track centerline could foul the track in the event of tip over or other catastrophic occurrence, but not limited thereto for the following conditions:

1.05.02a When, upon inspection and determination by Railroad's project representative, other conditions warrant.

1.05.02b When any excavation is performed below the bottom of tie elevation, if, in the reasonable opinion of Railroad's project representative, track or other Railroad facilities may be subject to movement or settlement.

1.05.02c When work in any way interferes with the safe operation of trains at timetable speeds.

1.05.02d When Railroad track, communications, signal, electrical or other facilities are subject to any hazard, whether either due to persons, material, equipment, blasting or other circumstances in the vicinity.

1.05.02e Special permission must be obtained from the Railroad before moving heavy or cumbersome objects or equipment which might result in making the track impassable.

1.05.03 Flagging services will be performed by qualified flaggers, as determined by Railroad's project representative.

1.05.03a Flagging crew generally consists of one individual. However, additional personnel may be required to protect Railroad Property and operations, if deemed necessary by the Railroad's project representative.

1.05.03b Each time a flagger is called, the minimum period for billing will be the eight (8) hour basic day.

1.05.03c The cost of flagger services will be borne by the Authority whether such services are provided by Railroad or by a Railroad approved flagging contractor. When flagging is performed by Railroad employees, the estimated cost for one (1) Railroad flagger is approximately between \$800.00-\$1,600.00 for an eight (8) hour basic day with time and one-half or double time for overtime, rest days and holidays. The estimated cost for each Railroad flagger includes vacation allowance, paid holidays, Railroad and unemployment insurance, public liability and property damage insurance, health and welfare benefits, vehicle, transportation, meals, lodging, radio, equipment, supervision and other costs incidental

to performing flagging services. Negotiations for Railroad labor or collective bargaining agreements and rate changes authorized by appropriate Federal authorities may increase actual or estimated flagging rates. **THE RAILROAD FLAGGING RATE IN EFFECT AT THE TIME OF PERFORMANCE BY THE CONTRACTOR HEREUNDER WILL BE USED TO CALCULATE THE ACTUAL COSTS OF FLAGGING PURSUANT TO THIS PARAGRAPH.**

1.05.03d The average train traffic on this route is _____ freight trains per 24-hour period at a timetable speed _____ MPH and _____ passenger trains at a timetable speed of _____ MPH.

1.06 Contractor General Safety Requirements

- 1.06.01** Work in the proximity of Railroad track(s) is potentially hazardous where movement of trains and equipment can occur at any time and in any direction. All work performed by contractors within twenty-five (25) feet of the centerline of any Railroad track must be in compliance with FRA Roadway Worker Protection Regulations.
- 1.06.02** Before beginning any task on Railroad Property, a thorough job safety briefing must be conducted with all personnel involved with the task and repeated when the personnel or task changes. If the task is within twenty-five (25) feet of the centerline of any Railroad track, the job briefing must include the Railroad's flagger, if applicable, and include the procedures the Contractor will use to protect its employees, subcontractors, agents or invitees from moving any equipment adjacent to or across any Railroad track(s).
- 1.06.03** Workers must not work within twenty-five (25) feet of the centerline of any Railroad track without an on track safety strategy approved by the Railroad's project representative. When authority is provided, every contractor or subcontractor employee must know: (1) who the flagger is and how to contact the flagger, (2) track limits of the authority, (3) the method of communication to stop and resume work, and (4) location of the designated places of safety. Persons or equipment entering flag/work limits that were not previously job briefed, must notify the flagger immediately, and be given a job briefing when working within twenty-five (25) feet of the centerline of a Railroad track.
- 1.06.04** When any Contractor work is to be done on the Railroad Property after normal working hours or on weekends, the Railroad's project representative must be notified. A minimum of two (2) Contractor employees must be present at all times.
- 1.06.05** Any employees, agents or invitees of Contractor or its subcontractors under suspicion of being under the influence of drugs or alcohol, or in the possession of same, will be removed from the Railroad Property and subsequently released to the custody of a representative of Contractor management. Future access to the Railroad Property by such person that employee is prohibited.

- 1.06.06** Any damage to Railroad Property, or any hazard noticed on passing trains must be reported immediately to the Railroad's project representative. Any vehicle or machine which may come in contact with track, signal equipment, or structure (bridge) and could result in a train derailment must be reported immediately to the Railroad's project representative and to the Railroad's Resource Operations Center at 1(800) 832-5452. Local emergency numbers are to be obtained from the Railroad's project representative prior to the start of any work and must be posted at the job site.
- 1.06.07** For safety reasons, all persons are prohibited from having pocket knives, firearms or other deadly weapons in their possession while working on Railroad Property.
- 1.06.08** All personnel protective equipment (PPE) used on Railroad Property must meet applicable OSHA and ANSI specifications. Current Railroad personnel protective equipment requirements are listed on the web site, www.contractororientation.com, however, a partial list of the requirements includes: a) safety glasses with permanently affixed side shields (no yellow lenses); b) hard hats; c) safety shoe with: hardened toes, above-the-ankle lace-up and a defined heel; and d) high visibility retro-reflective work wear. The Contractor will contact the Railroad's project representative regarding local specifications for meeting requirements relating to hi-visibility work wear. Hearing protection, fall protection, gloves, and respirators must be worn as required by State and Federal regulations. **(NOTE – Should there be a discrepancy between the information contained on the web site and the information in this paragraph, the web site will govern.)**
- 1.06.09** **THE CONTRACTOR MUST NOT PILE OR STORE ANY MATERIALS, MACHINERY OR EQUIPMENT CLOSER THAN 25'-0" TO THE CENTER LINE OF THE NEAREST RAILROAD TRACK. MATERIALS, MACHINERY OR EQUIPMENT MUST NOT BE STORED OR LEFT WITHIN 250 FEET OF ANY HIGHWAY/RAIL AT-GRADE CROSSINGS OR TEMPORARY CONSTRUCTION CROSSING IF STORAGE OF THE SAME MAY OBSTRUCT THE VIEW OF A TRAIN APPROACHING THE CROSSING. PRIOR TO BEGINNING WORK, THE CONTRACTOR MUST ESTABLISH A STORAGE AREA APPROVED BY THE RAILROAD'S PROJECT REPRESENTATIVE.**
- 1.06.10** Machines and vehicles must not be left unattended with the engine running. Parked machines and equipment must be in gear with brakes set and if equipped with blade, pan or bucket, they must be lowered to the ground. All machinery and equipment left unattended on Railroad Property must be left inoperable and secured against movement. (See internet Engineering Contractor Safety Orientation program for more detailed specifications)
- 1.06.11** Workers must not create and leave any conditions at the work site that may interfere with water drainage. Any work performed over water must meet all Federal, State and Local regulations.

- 1.06.12** All power line wires must be considered dangerous and of high voltage unless informed to the contrary by proper authority. For all power lines the minimum clearance between the lines and any part of the equipment or load must be; 200 KV or below - 15 feet; 200 to 350 KV - 20 feet; 350 to 500 KV - 25 feet; 500 to 750 KV - 35 feet; and 750 to 1000 KV - 45 feet. If capacity of the line is not known, a minimum clearance of forty-five (45) feet must be maintained. A person must be designated to observe clearance of the equipment and give a timely warning for all operations where it is difficult for an operator to maintain the desired clearance by visual means.

1.07 Excavation:

- 1.07.01** Before excavating, the Contractor must determine whether any underground pipe lines, electric wires or cables, including fiber optic cable systems are present and located within the Project work area. The Contractor must determine whether excavation on Railroad Property could cause damage to buried cables resulting in delay to Railroad traffic and disruption of service to users. Delays and disruptions to service may cause business interruptions involving loss of revenue and profits. Before commencing excavation, the Contractor must contact Railroad's project representative. All underground and overhead wires will be considered HIGH VOLTAGE and dangerous until verified with the company having ownership of the line. **It is the Contractor's responsibility to notify any other companies that have underground utilities in the area and arrange for the location of all underground utilities before excavating.**
- 1.07.02** The Contractor must cease all work and notify the Railroad immediately before continuing excavation in the area if obstructions are encountered which do not appear on drawings. If the obstruction is a utility and the owner of the utility can be identified, then the Contractor must also notify the owner immediately. If there is any doubt about the location of underground cables or lines of any kind, no work may be performed until the exact location has been determined. There will be no exceptions to these instructions.
- 1.07.03** All excavations must be conducted in compliance with applicable OSHA regulations and, regardless of depth, must be shored where there is any danger to Railroad tracks, structures or personnel.
- 1.07.04** Any excavations, holes or trenches on the Railroad Property must be covered, guarded and/or protected when not being worked on. When leaving work site areas at night and over weekends, the areas must be secured and left in a condition that will ensure that Railroad employees and other personnel who may be working or passing through the area are protected from all hazards. All excavations must be backfilled as soon as possible.

1.08 Hazardous Waste, Substances and Material Reporting:

1.08.01 If Contractor discovers any hazardous waste, hazardous substance, petroleum or other deleterious material, including but not limited to, any non-containerized commodity or material, on or adjacent to Railroad Property, or in or near any surface water, swamp, wetlands or waterways on or adjacent to Railroad Property, while performing any work under the Authority Agreement, Contractor must immediately: (a) notify the Railroad's Resource Operations Center at 1(800) 832-5452, of such discovery: (b) take safeguards necessary to protect its employees, subcontractors, agents and/or third parties: and (c) exercise due care with respect to such discovery, including the taking of any appropriate measure to minimize disturbance of such materials. This Section 1.08.01 does not apply to work intended to characterize, remediate, remove or otherwise address previously-known hazardous wastes, hazardous substances, petroleum or other deleterious materials.

1.09 Personal Injury Reporting

1.09.01 The Railroad is required to report certain injuries as a part of compliance with Federal Railroad Administration (FRA) reporting requirements. Any personal injury sustained by an employee of the Contractor, subcontractor or Contractor's invitees while on Railroad Property must be reported immediately (by phone or email if unable to contact in person) to the Railroad's project representative. The Non-Employee Personal Injury Data Collection Form contained herein is to be completed and sent by Fax to the Railroad at 1(817) 352-7595 and to the Railroad's project representative no later than the close of shift on the date of the injury.

NON-EMPLOYEE PERSONAL INJURY DATA COLLECTION

(If injuries are in connection with rail equipment accident/incident, highway rail grade crossing accident or automobile accident, ensure that appropriate information is obtained, forms completed and that data entry personnel are aware that injuries relate to that specific event.)

Injured Person Type:

- | | |
|---|---|
| <input type="checkbox"/> Passenger on train (C) | <input type="checkbox"/> Non-employee (N) (<i>i.e., emp of another railroad, or, non-BNSF emp involved in vehicle accident, including company vehicles</i>) |
| <input type="checkbox"/> Contractor/safety sensitive (F) | <input type="checkbox"/> Contractor/non-safety sensitive (G) |
| <input type="checkbox"/> Volunteer/safety sensitive (H) | <input type="checkbox"/> Volunteer/other non-safety sensitive (I) |
| <input type="checkbox"/> Non-trespasser (D) - to include highway users involved in highway rail grade crossing accidents who did not go around or through gates | |
| <input type="checkbox"/> Trespasser (E) - to include highway users involved in highway rail grade crossing accidents who went around or through gates | |
| <input type="checkbox"/> Non-trespasser (J) - Off railroad property | |

If train involved, Train ID: _____

Transmit attached information to Accident/Incident Reporting Center by:

Fax 1-817-352-7595 or by Phone 1-800-697-6736 or email to: Accident.Reporting.Center@BNSF.com

Officer Providing Information:

(Name)

(Employee No.)

(Phone #)

**REPORT PREPARED TO COMPLY WITH FEDERAL ACCIDENT REPORTING REQUIREMENTS AND
PROTECTED FROM DISCLOSURE PURSUANT TO 49 U.S.C. 20903 AND 83 U.S.C. 490**

NON-EMPLOYEE PERSONAL INJURY DATA COLLECTION

INFORMATION REQUIRED TO BE COLLECTED PURSUANT TO FEDERAL REGULATION. IT SHOULD BE USED FOR COMPLIANCE WITH FEDERAL REGULATIONS ONLY AND IT IS NOT INTENDED TO PRESUME ACCEPTANCE OF RESPONSIBILITY OR LIABILITY.

Accident City/St: _____ 2. Date: _____ Time: _____
County: _____ 3. Temperature: _____ 4. Weather: _____
(if non BNSF location)

Mile Post / Line Segment: _____

Driver's License No (and state) or other ID: _____ **SSN (required):** _____

Name (last, first, mi): _____

Address: _____ City: _____ St: _____ Zip: _____

Date of Birth: _____ and/or Age: _____ Gender: _____
(if available)

Phone Number: _____ Employer: _____

Injury: _____ 10. Body Part: _____
(i.e., Laceration, etc.)(i.e., Hand, etc.)

Description of Accident (To include location, action, result, etc.):

Treatment:

- ☐ First Aid Only _____
☐ Required Medical Treatment _____
☐ Other Medical Treatment _____

Dr. Name: _____ Date: _____

Dr. Address:

Street: _____ City: _____ St: _____ Zip: _____

Hospital Name: _____

Hospital Address:

Street: _____ City: _____ St: _____ Zip: _____

Diagnosis: _____

**REPORT PREPARED TO COMPLY WITH FEDERAL ACCIDENT REPORTING REQUIREMENTS
AND PROTECTED FROM DISCLOSURE PURSUANT TO 49 U.S.C. 20903 AND 83 U.S.C. 490**

RFP No.: HSR 14-32 – Addendum No. 2 – 10/09/2015

EXHIBIT C-1-CHSRA

Agreement Between BNSF RAILWAY COMPANY and the CONTRACTOR

Railroad File: _____

Authority Project: _____

<%Contractor.LegalName%> (hereinafter called "**Contractor**"), has entered into a _____ Agreement (hereinafter called "**Authority Agreement**") dated _____, 201__, with the California High Speed Rail Authority "**Authority**", for the performance of certain work in connection with the following project: _____ (the "**Project**"). Performance of such work will necessarily require Contractor to enter **BNSF RAILWAY COMPANY** (hereinafter called "**Railroad**") right of way and property (hereinafter called "**Railroad Property**"). The Railroad has entered or may enter into one or more agreements governing the Project with the Authority, which may include overpass agreements, temporary construction license(s), easement(s), construction agreements or related agreements. The Authority Agreement provides that no work will be commenced within Railroad Property until Contractor (i) executes and delivers to Railroad this Agreement, and (ii) provides insurance of the coverage and limits specified in the Authority Agreement and Section 3 herein. If this Agreement is executed by a party who is not the Owner, General Partner, President or Vice President of Contractor, Contractor must furnish evidence to Railroad certifying that the signatory is empowered to execute this Agreement on behalf of Contractor.

Accordingly, in consideration of Railroad granting permission to Contractor to enter upon Railroad Property and as an inducement for such entry, Contractor, effective on the date of this Agreement, has agreed and does hereby agree with Railroad as follows:

1) RELEASE OF LIABILITY AND INDEMNITY

To the extent permitted by applicable law, Contractor hereby waives, releases, indemnifies, defends and holds harmless Railroad for all judgments, awards, claims, demands, and expenses (including attorneys' fees), for injury or death to all persons, including Railroad's and Contractor's officers and employees, and for loss and damage to property belonging to any person, arising in any manner from Contractor's or any of Contractor's subcontractors' acts or omissions or any work performed on or about Railroad's property or right-of-way. **THE LIABILITY ASSUMED BY CONTRACTOR WILL NOT BE AFFECTED BY THE FACT, IF IT IS A FACT, THAT THE DESTRUCTION, LOSS OR DAMAGE, INJURY OR DEATH WAS OCCASIONED BY OR CONTRIBUTED TO BY THE NEGLIGENCE OF RAILROAD, ITS AGENTS, SERVANTS, EMPLOYEES OR OTHERWISE, EXCEPT TO THE EXTENT THAT SUCH CLAIMS ARE PROXIMATELY CAUSED BY THE WILLFUL MISCONDUCT OR SOLE NEGLIGENCE OF RAILROAD.**

Contractor further agrees, at its expense, in the name and on behalf of Railroad, that it will adjust and settle all claims made against Railroad, and will, at Railroad's request and in its discretion, appear and

defend any suits or actions of law or in equity brought against Railroad, on any claim or cause of action arising or growing out of or in any manner connected with any liability assumed by Contractor under this Agreement for which Railroad is liable or is alleged to be liable. Railroad will give notice to Contractor, in writing, of the receipt or dependency of such claims and thereupon Contractor must proceed to adjust and handle to a conclusion such claims, and in the event of a suit being brought against Railroad, Railroad may forward summons and complaints or other process in connection therewith to Contractor, and Contractor, at Railroad's discretion, must defend, adjust, or settle such suits and protect, indemnify, and save harmless Railroad from and against all damages, judgments, decrees, attorney's fees, costs, and expenses growing out of or resulting from or incident to any such claims or suits.

In addition to any other provision of this Agreement, in the event that all or any portion of this Article shall be deemed to be inapplicable for any reason, including without limitation as a result of a decision of an applicable court, legislative enactment or regulatory order, the parties agree that this Article shall be interpreted as requiring Contractor to indemnify Railroad to the fullest extent permitted by applicable law. **THROUGH THIS AGREEMENT, THE PARTIES EXPRESSLY INTEND FOR CONTRACTOR TO INDEMNIFY RAILROAD FOR RAILROAD'S ACTS OF NEGLIGENCE.**

It is mutually understood and agreed that the assumption of liabilities and indemnification provided for in this Agreement survive any termination of this Agreement.

2) **TERM**

This Agreement is effective from the date of the Agreement until (i) the completion of the Project set forth herein, and (ii) full and complete payment to Railroad of any and all sums or other amounts owing and due hereunder.

3) **INSURANCE**

Contractor shall, at its sole cost and expense, procure and maintain during the term of this Agreement the following insurance coverage:

- A. **Commercial General Liability Insurance.** This insurance shall contain broad form contractual liability with a combined single limit of a minimum of \$5,000,000 each occurrence and an aggregate limit of at least \$10,000,000, but in no event less than the amount otherwise carried by the Contractor.

Coverage must be purchased on a post 2004 ISO occurrence form or equivalent and include coverage for, but not limited to, the following:

- Bodily Injury and Property Damage
- Personal Injury and Advertising Injury
- Fire legal liability
- Products and completed operations

This policy shall also contain the following endorsements, which shall be indicated on the certificate of insurance:

- The definition of insured contract shall be amended to remove any exclusion or other limitation for any work being done within 50 feet of railroad property.
- Waiver of subrogation in favor of and acceptable to Railroad.
- Additional insured endorsement in favor of and acceptable to Railroad.
- Separation of insureds.
- The policy shall be primary and non-contributing with respect to any insurance carried by Railroad.

It is agreed that the workers' compensation and employers' liability related exclusions in the Commercial General Liability insurance policy(s) required herein are intended to apply to employees of the policy holder and shall not apply to Railroad employees.

No other endorsements limiting coverage as respects obligations under this Agreement may be included on the policy with regard to the work being performed under this Agreement.

- B. Business Automobile Insurance. This insurance shall contain a combined single limit of at least \$1,000,000 per occurrence, and include coverage for, but not limited to the following:

- Bodily injury and property damage
- Any and all vehicles owned, used or hired

The policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- Waiver of subrogation in favor of and acceptable to Railroad.
- Additional insured endorsement in favor of and acceptable to Railroad.
- Separation of insureds.
- The policy shall be primary and non-contributing with respect to any insurance carried by Railroad.

- C. Workers Compensation and Employers Liability insurance. This insurance must include coverage for, but not limited to:

- Contractor's statutory liability under the worker's compensation laws of the state(s) in which the work is to be performed. Regardless of whether required under State law, the insurance must cover all employees.
- Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 by disease policy limit, \$500,000 by disease each employee.

This policy shall also contain the following endorsements or language, which shall be indicated on the certificate of insurance:

- Waiver of subrogation in favor of and acceptable to Railroad.

- D. Railroad Protective Liability Insurance. This insurance must name only the Railroad as the Insured with coverage of at least \$5,000,000 per occurrence and \$10,000,000 in the aggregate.

The policy must be issued on a standard ISO form CG 00 35 12 04 and include the following:

- Endorsed to include the Pollution Exclusion Amendment
- Endorsed to include the Limited Seepage and Pollution Endorsement.
- Endorsed to remove any exclusion for punitive damages.
- No other endorsements restricting coverage may be added.
- The original policy must be provided to the Railroad prior to performing any work or services under this Agreement
- Definition of “Physical Damage to Property” shall be endorsed to read: “means direct and accidental loss of or damage to all property owned by any named insured and all property in any named insured’ care, custody, and control arising out of the acts or omissions of the contractor named on the Declarations.

In lieu of providing a Railroad Protective Liability Policy, Licensee may participate (if available) in Railroad’s Blanket Railroad Protective Liability Insurance Policy.

E. Other Requirements.

1. Where allowable by law, all policies (applying to coverage listed above) shall contain no exclusion for punitive damages.
2. Contractor agrees to waive its right of recovery against Railroad for all claims and suits against Railroad. In addition, its insurers, through the terms of the policy or policy endorsement, waive their right of subrogation against Railroad for all claims and suits. Contractor further waives its right of recovery, and its insurers also waive their right of subrogation against Railroad for loss of its owned or leased property or property under Contractor’s care, custody or control.
3. Allocated Loss Expense shall be in addition to all policy limits for coverages referenced above.
4. Contractor is not allowed to self-insure without the prior written consent of Railroad. If granted by Railroad, any self-insured retention or other financial responsibility for claims shall be covered directly by Contractor in lieu of insurance. Any and all Railroad liabilities that would otherwise, in accordance with the provisions of this Agreement, be covered by Contractor’s insurance will be covered as if Contractor elected not to include a deductible, self-insured retention or other financial responsibility for claims.
5. Prior to commencing services, Contractor shall furnish to Railroad an acceptable certificate(s) of insurance from an authorized representative evidencing the required coverage(s), endorsements, and amendments. The certificate should be directed to the following address:

BNSF Railway Company
c/o CertFocus
P.O. Box 140528
Kansas City, MO 64114
Toll Free: 877-576-2378
Fax number: 817-840-7487

Email: BNSF@certfocus.com
www.certfocus.com

6. Contractor shall notify Railroad in writing at least thirty (30) days prior to any cancellation, non-renewal, substitution or material alteration.

7. Any insurance policy shall be written by a reputable insurance company acceptable to Railroad or with a current Best's Guide Rating of A- and Class VII or better, and authorized to do business in the state(s) in which the service is to be provided.

8. If coverage is purchased on a "claims made" basis, Contractor hereby agrees to maintain coverage in force for a minimum of three (3) years after expiration, cancellation or termination of this Agreement. Contractor agrees to provide evidence annually of such coverage as required hereunder.

9. Contractor represents that this Agreement has been thoroughly reviewed by Contractor's insurance agent(s)/broker(s), who have been instructed by Contractor to procure the insurance coverage required by this Agreement.

10. Not more frequently than once every five (5) years after the date of this Agreement, Railroad may reasonably modify the required insurance coverage to reflect then-current risk management practices in the railroad industry and underwriting practices in the insurance industry.

11. If any portion of the Project is to be subcontracted by Contractor, Contractor shall require that the subcontractor shall provide and maintain insurance coverage(s) as set forth herein, naming Railroad as an additional insured, and shall require that the subcontractor shall release, defend and indemnify Railroad to the same extent and under the same terms and conditions as Contractor is required to release, defend and indemnify Railroad herein.

12. Failure to provide evidence as required by this section shall entitle, but not require, Railroad to all rights set forth in Section 1.01.04 of **Exhibit C-CHSRA**, including immediate suspension of Contractor's access to Railroad Property, including the access rights of all of Contractor's employees, agents and subcontractors. Acceptance of a certificate that does not comply with this section shall not operate as a waiver of Contractor's obligations hereunder.

13. The fact that insurance (including, without limitation, self-insurance) is obtained by Contractor shall not be deemed to release or diminish the liability of Contractor including, without limitation, liability under the indemnity provisions of this Agreement.

14. Damages recoverable by Railroad shall not be limited by the amount of the required insurance coverage.

15. In the event of a claim or lawsuit involving Railroad arising out of this Agreement, Contractor will make available all policy(ies) covering such claim or lawsuit.

16. These insurance provisions are intended to be a separate and distinct obligation on the part of the Contractor. Therefore, these provisions shall be enforceable and Contractor shall be bound thereby regardless of whether or not indemnity provisions are determined to be enforceable in the jurisdiction in which the work covered hereunder is performed.

17. For purposes of this section, Railroad shall mean “Burlington Northern Santa Fe LLC”, “BNSF Railway Company” and the subsidiaries, successors, assigns and affiliates of each.

4) EXHIBIT C-CHSRA CONTRACTOR REQUIREMENTS

The Contractor must observe and comply with all provisions, obligations, requirements and limitations contained in this Agreement, and the Contractor Requirements set forth on **Exhibit C-CHSRA** attached to the Agreement, including, but not limited to, payment of all costs incurred for any damages to Railroad roadbed, tracks and/or appurtenances thereto, resulting from Contractor’s use or occupancy of, or presence of its employees, representatives, agents or subcontractors on or about Railroad Property. Capitalized terms not defined herein have the same meaning as set forth in the Agreement.

5) TRAIN DELAY

a. Contractor is responsible for and hereby indemnifies and holds harmless Railroad (including its affiliated Railroad companies, and its tenants) for, from and against all damages arising from any delays to Railroad operations, including unscheduled delays to freight or passenger trains which affects Railroad’s ability to fully utilize its equipment or to meet customer service and contract obligations. Contractor will be billed, as further provided below, for the economic losses arising from loss of use of equipment, contractual loss of incentive pay and bonuses and contractual penalties resulting from such unscheduled train delays, whether caused by Contractor, or subcontractors, or by the Railroad performing work under this Agreement. Railroad agrees that it will not perform any act to unnecessarily cause train delay.

b. For loss of use of equipment, Contractor will be billed the current freight train hour rate per train as determined from Railroad’s records. Any disruption to train traffic may cause delays to multiple trains at the same time for the same period.

c. The parties acknowledge that trains carrying consumer products, industrial products, unit bulk commodities, BNSF company work and passengers operate under incentive/penalty contracts between Railroad and its customer(s). Under these arrangements, if Railroad does not meet its contract service commitments, Railroad may suffer loss of performance or incentive pay and/or be subject to penalty payments. Contractor is responsible for any train performance and incentive penalties or other contractual economic losses actually incurred by Railroad which are attributable to an unscheduled train delay caused by Contractor or its subcontractors.

d. The contractual relationship(s) between Railroad and its customers are proprietary and confidential. In the event of a train delay or other interference with Railroad operations covered by this Agreement, Railroad will share information relevant to any such train delay or interference to the extent consistent with Railroad confidentiality obligations. Damages for train delay are currently \$382.20 per hour per incident. The rate then in effect at the time of performance by the Contractor hereunder will be used to calculate the actual costs of train delay pursuant to this Agreement.

e. Contractor and its subcontractors must give Railroad’s project representative thirty (30) days’ advance notice of the times and dates for proposed work windows for Project work occurring on Railroad Property (excluding work on the roadway surface or deck of the Structure). Railroad’s project representative will work with the Contractor and the Authority, through a joint working group if one is created by the parties, to determine consistency with the Approved Schedule and with Contractor to

establish mutually agreeable work windows for such work. Contractor acknowledges that any request for work windows with less than thirty (30) days' advance notice will have a reduced probability of approval. Railroad has the right at any time to revise or change the work windows due to train operations, service obligations or changes to the Approved Schedule provided that, Railroad will use commercially reasonable efforts to provide advance notice to Authority of such revision or change. Railroad will not be responsible for any additional costs or expenses resulting from a change in work windows. Additional costs or expenses resulting from a change in work windows is the responsibility of the Contractor. Contractor and subcontractors must plan, schedule, coordinate and conduct all Contractor's work so as to not cause any unscheduled delays to any trains or Railroad operations.

Signature pages to follow

IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be executed by its duly authorized officer the day and year first above written.

<% Contractor.LegalName% >

BNSF Railway Company

By: _____

By: _____

Printed Name: _____

Name: _____

Title: _____

Title: _____

Contact Person: _____

Address: _____

City: _____

State: Zip: _____

Fax: _____

Phone: _____

E-mail: _____

BRIDGE DESIGN, PLANS & SPECIFICATIONS:

Except for the design of temporary falsework and shoring, BNSF review of the Structure plans will be limited to the vertical and horizontal clearances, sight distance for existing train signals, foundation dimensions and drainage characteristics as they relate to existing and future tracks. BNSF will not review structural design calculations for the permanent Structure unless a member or members are influenced by railroad live loads.

Temporary falsework and shoring plans and calculations must be reviewed and approved by BNSF prior to beginning construction. The Authority shall perform an independent review of the design calculations for temporary falsework and shoring prior to submitting them to BNSF for approval. Temporary construction clearances must be no less than 15 feet measured horizontally from the centerline of the nearest track and 21 feet-6 inches measured vertically from the top of rail of the most elevated track to the bottom of lowest temporary falsework member.

For the permanent Structure, the Authority will submit plans showing the least horizontal distance from the centerline of existing and future tracks to the face of the nearest member of the proposed Structure. The location of the least horizontal distance must be accurately described such that BNSF can determine where it will occur in both the horizontal and vertical plane. If the permanent member is within 25 feet of the nearest BNSF track (or future BNSF track), collision walls shall be incorporated into the permanent Structure design according to American Railway Engineering and Maintenance-of-Way Association (AREMA) Manual of Recommended Practices - Chapter 8 - Article 2.1.5.

For the permanent Structure, the Authority will submit plans showing the least vertical clearance from top of the most elevated rail of existing and future tracks to the lowest point of the proposed Structure. A profile of the existing top of rail elevation shall be plotted on the bridge plans. The profile shall extend for 500 feet in each direction of the proposed overpass and a separate profile shall be plotted for each track. If the existing top of rail profile(s) is not uniform such that a sag exists in the vicinity of the proposed Structure, the permanent Structure vertical clearance shall be increased sufficiently to accommodate a raise in the track profile to remove the sag. Prior to beginning construction of the permanent Structure, the top of rail elevations should be checked and verified that they have not changed from the assumed elevations utilized for the design of the bridge.

Prior to issuing any invitation to bid on construction of the Structure, the Authority should conduct a pre-bid meeting where prospective Providers have the opportunity to communicate with BNSF personnel regarding site specific train speeds, train density, and general safety requirements for men and equipment working near live tracks. Any invitation to bid and specifications for the Structure must be submitted to BNSF for review and approval prior to letting of bids for the Project.

BRIDGE CONSTRUCTION:

After awarding the bid, but prior to the Provider entering BNSF's right-of-way or property, the Authority should conduct a pre-construction meeting with BNSF personnel in attendance to reiterate the safety requirements of construction activity within 25 feet (on the ground surface) of any live BNSF tracks (excluding work on the roadway surface or deck of the Structure)..

During construction, BNSF may require an independent engineering inspector to be present during certain critical activities of the Project, including but not limited to: driving foundation

piles, erecting falsework, construction of shoring and retaining walls, placing concrete, placing soil backfill and compaction processes. The Authority shall reimburse BNSF for all costs of supplemental inspection services.

Within 90 days of the conclusion of the Project and final acceptance by BNSF, the Authority will provide BNSF with a complete electronic set of the bridge plans labeled "As Built". Those plans will reflect any and all deviations from the original plans that occurred during construction. The "As Built" plans will be submitted in Micro Station *.dgn electronic format (preferred) or AutoCAD *.dwg format. Electronic plans are to be submitted in the original format used for CAD plan preparation and not converted to another format prior to submission. Actual measured "as constructed" clearances shall be shown as well as depth, size and location of all foundation components. The plans shall show dimensioned locations of existing and relocated utilities.

BRIDGE MAINTENANCE:

As between BNSF and Authority, Authority will be responsible for maintenance and repair of the Structure including the earth retention components, embankment slopes, erosion control, surface drainage, fencing, deck drains, landscaping, paint, walkways, handrails, lighting, and other improvements associated with the Project. Authority has the right to assign and/or delegate such responsibilities to one or more state or local government agencies, as described in the Overpass Agreement between BNSF and Authority, dated _____, 20____.

Fencing and other pedestrian access controls within BNSF's right-of-way and incorporated into the Project shall be designed and maintained by the Authority. Trespasser control onto the Structure shall be the responsibility of the Authority. Graffiti removal will be the responsibility of the Authority.

BRIDGE INSPECTION:

The Authority will conduct annual routine structural inspections. In the event of an earthquake, fire, flood, damage from vehicular impacts or other emergent situations, the Authority will provide an immediate inspection by qualified personnel and notify BNSF of damage that may affect safe passage of trains. If necessary the Authority will embargo weights or provide lane closures or other such measures to protect the structural integrity of the Structure such that there can be continuous safe passage of trains until repairs are made.

BRIDGE ALTERATIONS:

Except as provided otherwise by this Agreement, there will be no alterations made to the Structure that will alter the railroad vertical or horizontal clearances provided by the original design.